

REMARKS

This application has been carefully reviewed in light of the Office Action dated January 3, 2002. Claims 1-18 remain pending in this application. Claim 1 is the independent claim. Favorable reconsideration is respectfully requested.

On the merits, the Office Action rejected Claims 1-7, 12-18 under 35 U.S.C. § 102(e) as being anticipated by McGaffigan (U.S. Patent No. 6,031,958; hereinafter "McGaffigan"). The Office Action also rejected Claims 8-11 under 35 U.S.C. § 103(a) as being unpatentable over McGaffigan in view of Endo et al. (U.S. Patent No. 5,123,077; hereinafter "Endo"). Applicants respectfully submit that the pending claims are patentable for at least the following reasons.

Applicants' Claim 1 recites: "[a] side-emitting illumination device for uniformly distributing light comprising: an LED light source, a light-transmitting rod which permits total internal reflection, and outcoupling material affixed to an outer surface of the rod, wherein the outcoupling material affixed to an outer surface of the rod controls the angular distribution of light leaving the side of the rod."

McGaffigan fails to recite or suggest 1) outcoupling material affixed to an outer surface of the rod; and 2) the outcoupling

material affixed to an outer surface of the rod controls the angular distribution of light leaving the side of the rod.

McGaffigan discloses a simulated laser light system (SLLS) with a light pipe which emits light rays which are redirected by prismatic surfaces radially outward from the side of the light pipe (see, e.g., Col. 3, lines 18-47). When the light rays from a source strike the prismatic surfaces, they are reflected internally and refracted (see, e.g., Col. 3, lines 48-67). Consequently, the prismatic surfaces of McGaffigan control the angular distribution of light leaving the side of the rod, as opposed to any material on the outside of the rod. Applicants' specification specifically notes, in the prior art section, the desire to avoid using optical facets for side emitting rods due to the expensive cost and poor performance when using white light (see Page 1, lines 7-16). Even McGaffigan reflects this disadvantage by stressing the lights source preferably be colored (Col. 7, lines 12-22).

In addition, McGaffigan further teaches away from Applicants' invention by stipulating that "[f]or proper orientation, the reflection and refraction inside the prismatic element should be specular, i.e., nondiffuse, otherwise the emitted light rays will not have the characteristic appearance of a laser beam.. and refractions will occur in the emitted light rays will not lie in the same plane as the incident rays" (Col. 3, line 67 to Col. 4, line 8). This teaches away from Applicants' invention which

provides uniformly distributed light which has potential applications in, i.e., lamps found in commercial supermarket freezers (see, e.g., Applicants' specification, page 6, lines 6-20).

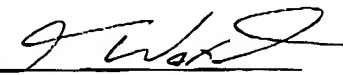
Claim 1 is believed patentable over McGaffigan for at least these reasons.

Claims 2-18 depend from independent Claim 1 discussed above and are believed patentable for at least the same reasons. In addition, Applicants respectfully believe Claims 2-18 to be independently patentable and request separate consideration of each claim. In addition, Applicants respectfully believe the above amendments and remarks render the § 103 rejection of Claims 8-11 moot. Withdrawal of the § 103 rejection is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned agent may be reached by telephone at the number given below.

Respectfully submitted,

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APPENDIX A
MARKED-UP CLAIMS

1. (Amended) A side-emitting illumination device for uniformly distributing light comprising:

an LED light source,

a light-transmitting rod which permits total internal reflection, and

outcoupling material affixed to an outer surface of the rod,
wherein the outcoupling material affixed to an outer surface
of the rod controls the angular distribution of light leaving the
side of the rod..